

Environmental Profile

This LCA is calculated according to: ISO 14044, ISO 14040 and EN 15804

Ecochain v3.5.80



Product: 3070825 - Tigris PEXc/Al/PE Pipe WT 20x2.25 L=3 F
Unit: 1 piece
Manufacturer: Wavin - PL - MPC

LCA standard: EN15804+A2 (2019)
Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
Externally verified: Yes
Issue date: 30-06-2023
End of validity: 30-06-2028
Verifier: Martijn van Hövell - SGS Search



This LCA was evaluated according to EN15804+A2. It was concluded that the LCA complies with this standard.

The LCA background information and project dossier have been registered in the online Ecochain application in the account Wavin - PL - MPC (2021). (☑ = module declared, MND = module not declared).

A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
☑	☑	☑	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	☑	☑	☑	☑
Product stage					Use stage							End-of-Life stage				
A1 Raw material supply A2 Transport A3 Manufacturing					B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment B6 Operational energy use B7 Operational water use							C1 De-construction demolition C2 Transport C3 Waste processing C4 Disposal				
Construction process stage												Benefits and loads beyond the system boundaries				
A4 Transport gate to site A5 Assembly / Construction installation process												D Reuse- Recovery- Recycling- potential				

Environmental impacts and parameters

GWP-total = EF EN15804+A2 Climate Change [kg CO2 eq]; **GWP-f** = EF Climate change - Fossil [kg CO2 eq]; **GWP-b** = EF EN15804+A2 Climate Change - Biogenic [kg CO2 eq]; **GWP-luluc** = EF EN15804+A2 Climate Change - Land use and LU change [kg CO2 eq]; **ODP** = EF Ozone depletion [kg CFC11 eq]; **AP** = EF Acidification [mol H+ eq]; **EP-fw** = EF Eutrophication, freshwater [kg P eq]; **EP-m** = EF Eutrophication, marine [kg N eq]; **EP-T** = EF Eutrophication, terrestrial [mol N eq]; **POCP** = EF Photochemical ozone formation [kg NMVOC eq]; **ADP-mm** = EF Resource use, minerals and metals [kg Sb eq]; **ADP-f** = EF Resource use, fossils [MJ]; **WDP** = EF Water use [m3 depriv.]; **PM** = EF Particulate matter [disease inc.]; **IR** = EF Ionising radiation [kBq U-235 eq]; **ETP-fw** = EF Ecotoxicity, freshwater [CTUe]; **HTP-c** = EF Human toxicity, cancer [CTUh]; **HTP-nc** = EF Human toxicity, non-cancer [CTUh]; **SQP** = EF Land use [Pt]; **PERE** = Use of renewable primary energy excluding renewable primary energy resources used as raw materials [MJ]; **PERM** = Use of renewable primary energy resources used as raw materials [MJ]; **PERT** = Total use of renewable primary energy resources [MJ]; **PENRE** = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials [MJ]; **PENRM** = Use of non-renewable primary energy resources used as raw materials [MJ]; **PENRT** = Total use of non-renewable primary energy resources [MJ]; **PET** = Total energy [MJ]; **SM** = Use of secondary material [kg]; **RSF** = Use of renewable secondary fuels [MJ]; **NRSF** = Use of non-renewable secondary fuels [MJ]; **FW** = Use of net fresh water [m3]; **HWD** = Hazardous waste disposed [kg]; **NHWD** = Non-hazardous waste disposed [kg]; **RWD** = Radioactive waste disposed [kg]; **CRU** = Components for re-use [kg]; **MFR** = Materials for recycling [kg]; **MER** = Materials for energy recovery [kg]; **EE** = Exported energy [MJ]; **EET** = Exported energy thermic [MJ]; **EEE** = Exported energy electric [MJ]

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	2.51E+0	4.11E-2	4.64E-2	2.60E+0	6.54E-3	1.00E+0	2.26E-2	2.00E-1	3.83E+0
GWP-f	kg CO2 eq	2.58E+0	4.11E-2	3.27E-2	2.66E+0	6.53E-3	9.21E-1	2.25E-2	2.01E-1	3.81E+0
GWP-b	kg CO2 eq	-7.87E-2	1.85E-5	1.36E-2	-6.51E-2	3.97E-6	8.22E-2	1.09E-4	-2.50E-3	1.47E-2
GWP-luluc	kg CO2 eq	6.54E-3	1.53E-5	2.00E-5	6.58E-3	2.31E-6	2.52E-6	5.56E-7	2.45E-3	9.04E-3
ODP	kg CFC11 eq	1.06E-7	9.06E-9	1.90E-9	1.17E-7	1.51E-9	1.14E-9	6.53E-10	-3.37E-8	8.63E-8
AP	mol H+ eq	1.47E-2	2.55E-4	1.90E-4	1.51E-2	3.72E-5	1.24E-4	1.62E-5	4.16E-3	1.95E-2
EP-fw	kg P eq	8.75E-5	4.11E-7	1.16E-6	8.90E-5	5.37E-8	1.31E-7	2.57E-8	2.17E-5	1.11E-4
EP-m	kg N eq	2.30E-3	8.78E-5	2.87E-5	2.41E-3	1.33E-5	5.55E-5	1.01E-5	5.51E-4	3.04E-3
EP-T	mol N eq	2.58E-2	9.69E-4	2.94E-4	2.71E-2	1.47E-4	6.30E-4	6.57E-5	6.07E-3	3.40E-2
POCP	kg NMVOC eq	8.47E-3	2.75E-4	9.66E-5	8.84E-3	4.19E-5	1.69E-4	2.35E-5	1.92E-3	1.10E-2
ADP-mm	kg Sb eq	1.78E-5	1.03E-6	2.25E-6	2.11E-5	1.69E-7	6.71E-8	1.62E-8	-1.42E-4	-1.20E-4
ADP-f	MJ	4.39E+1	6.19E-1	2.60E-1	4.48E+1	1.00E-1	6.96E-2	4.92E-2	1.36E+0	4.64E+1
WDP	m3 depriv.	9.14E-1	2.20E-3	8.05E-3	9.24E-1	3.08E-4	8.73E-4	2.44E-4	1.25E-1	1.05E+0
PM	disease inc.	1.60E-7	3.65E-9	1.52E-9	1.65E-7	5.90E-10	1.17E-9	3.24E-10	5.16E-8	2.19E-7
IR	kBq U-235 eq	5.72E-2	2.59E-3	3.17E-4	6.01E-2	4.38E-4	2.26E-4	2.56E-4	7.74E-3	6.87E-2
ETP-fw	CTUe	5.27E+1	5.50E-1	1.53E+0	5.48E+1	8.14E-2	3.19E-1	2.45E+1	1.46E+1	9.43E+1
HTP-c	CTUh	2.62E-9	1.80E-11	7.95E-11	2.72E-9	2.90E-12	1.31E-10	1.97E-12	8.65E-10	3.72E-9
HTP-nc	CTUh	4.97E-8	6.00E-10	1.95E-9	5.23E-8	9.70E-11	9.54E-10	4.19E-11	1.50E-8	6.83E-8
SQP	Pt	1.35E+1	5.31E-1	2.93E-1	1.43E+1	8.58E-2	4.58E-2	1.18E-1	-8.16E-1	1.37E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.98E+0	5.49E-5	2.66E+0	6.64E+0	1.44E-3	3.19E-3	3.26E-3	4.93E-1	7.14E+0
PERM	MJ	0	7.64E-3	0	7.64E-3	0	0	0	0	7.64E-3
PERT	MJ	3.98E+0	7.70E-3	2.66E+0	6.65E+0	1.44E-3	3.19E-3	3.26E-3	4.93E-1	7.15E+0
PENRE	MJ	4.69E+1	8.65E-3	2.79E-1	4.72E+1	1.06E-1	7.44E-2	5.22E-2	1.06E+0	4.85E+1
PENRM	MJ	0	6.48E-1	0	6.48E-1	0	0	0	0	6.48E-1
PENRT	MJ	4.69E+1	6.57E-1	2.79E-1	4.79E+1	1.06E-1	7.44E-2	5.22E-2	1.06E+0	4.91E+1
PET	MJ	5.09E+1	6.64E-1	2.94E+0	5.45E+1	1.08E-1	7.76E-2	5.54E-2	1.55E+0	5.63E+1
SM	kg	0	0	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0	0	0
FW	m3	2.35E-2	7.48E-5	2.24E-4	2.38E-2	1.13E-5	1.68E-4	6.18E-5	4.40E-3	2.84E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.28E-4	1.55E-6	1.96E-7	7.29E-4	2.56E-7	3.16E-7	5.87E-8	-2.99E-4	4.31E-4
NHWD	kg	3.99E-1	3.87E-2	3.28E-3	4.41E-1	6.21E-3	8.11E-3	1.99E-1	1.20E-1	7.74E-1
RWD	kg	5.85E-5	4.07E-6	2.86E-7	6.28E-5	6.82E-7	2.84E-7	3.28E-7	7.61E-6	7.17E-5
CRU	kg	0	0	0	0	0	0	0	0	0
MFR	kg	0	0	0	0	0	0	0	0	0
MER	kg	0	0	0	0	0	0	0	0	0
EE	MJ	0	0	0	0	0	0	0	0	0
EET	MJ	0	0	0	0	0	0	0	0	0
EEE	MJ	0	0	0	0	0	0	0	0	0



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